



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/881,609	06/14/2001	Leo Mark Pedlow JR.	50P3990.01	6398
22242	7590	11/02/2005	EXAMINER	
FITCH EVEN TABIN AND FLANNERY 120 SOUTH LA SALLE STREET SUITE 1600 CHICAGO, IL 60603-3406			SHELEHEDA, JAMES R	
			ART UNIT	PAPER NUMBER
			2617	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/881,609

Applicant(s)

PEDLOW, LEO MARK

Examiner

James Sheleheda

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 20-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-12 and 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Nelson (5,819,019).

As to claim 1, Nelson discloses a video on demand system (Fig. 1; column 9, line 66-column 10, line 4), comprising:

a transmission channel (130);

a plurality of receivers coupled to the transmission channel (settops, 140; Fig. 1),  
a VOD client (VOD application, 1100) at each receiver capable of subscribing to one or more VOD sessions over a transport stream (column 10, lines 5-10);

a headend coupled to the transmission channel (120; Fig. 1), said headend including a video server that can transmit one or more VOD session to one or more receivers (column 10, lines 11-37), and a control server coupled to the video server (connection manager, 345; Fig. 11), the control server to dynamically allocate (column 10, lines 38-51) and terminate VOD sessions (column 11, lines 4-13) over the transport stream as VOD clients are added (column 10, lines 38-51) and terminated (column 11, lines 4-13), and, if necessary, to cause the video server to transmit one or more dummy

Art Unit: 2617

sessions over the transport stream to maintain a predetermined minimum bandwidth of content over the transport stream (wherein MPEG constant-bit rate encoding *requires* dummy packets to be added to the stream as needed to maintain a predetermined bit-rate value over the transport stream; column 6, lines 4-6).

As to claim 2, Nelson discloses wherein the control server will prevent each receiver from decoding the dummy sessions (wherein the MPEG inserted dummy packets are null-data and not decoded by a receiver; column 6, lines 4-6).

As to claim 3, Nelson discloses wherein the control server will, If necessary, transmit one or more dummy sessions over the transport stream to maintain a minimum bandwidth of content over the transport stream to ensure that each receiver can synchronize to a subscribed VOD session (wherein the dummy packets are inserted to comply with the MPEG standard for video and allow proper encoding and decoding; column 6, lines 4-6).

As to claim 4, Nelson discloses wherein the control server is configured to determine whether the bandwidth of content over the transport stream is below a predetermined threshold (wherein it is determined if the video stream is at the required constant bit rate), and to cause the video server to transmit one or more dummy sessions, as necessary, to maintain the bandwidth of content at the predetermined threshold (wherein MPEG constant-bit rate encoding *requires* dummy packets to be

added to the stream as needed to maintain a predetermined bit-rate value over the transport stream; column 6, lines 4-6).

As to claim 5, Nelson discloses wherein each receiver includes a demodulator (inherently present to allow the set top box to receive the distributed television signals; Fig. 1; column 9, line 65-column 10, line 4), decoder (inherently present to allow decoding of an MPEG video; column 6, lines 4-6) and an MPEG frame synchronizer (inherently present to synchronize with and display an MPEG stream; column 6, lines 4-6).

As to claim 6, Nelson discloses wherein said headend includes a transmitter (MDS, 350; column 10, lines 52-64) having an MPEG frame synchronizer (inherently present to allow to properly synchronize and transmit MPEG video), encoder (inherently present to encode the MPEG video) and modulator (inherently present to allow the system to distribute the television signals; column 9, line 65-column 10, line 4).

As to claim 7, Nelson discloses wherein the transport stream is over a radio frequency channel (column 4, lines 35-43).

As to claim 8, Nelson discloses wherein the video server can transmit one or more VOD sessions over one or more RF channels each associated with a transport stream (column 4, lines 35-43 and column 9, line 66-column 10, line 4), and wherein

said control server, if necessary, to cause the video server to transmit one or more dummy sessions over each transport stream, as necessary, to maintain a predetermined minimum bandwidth of content, over each of the one or more transport streams (wherein MPEG constant-bit rate encoding *requires* dummy packets to be added to the stream as needed to maintain a predetermined bit-rate value over the transport stream; column 6, lines 4-6).

As to claim 9, Nelson discloses wherein the control server receives a request for a new VOD session from a VOD client (column 9, line 66-column 10, line 16), the control server terminates one or more of the one or more dummy sessions (wherein dummy packets are no longer added to stuff the transport stream once a new VOD session is transmitted; column 10, lines 21-64), and causes transmission of the new VOD session over the transport stream (column 10, lines 21-64).

As to claim 10, Nelson discloses a video on demand server (Fig. 1; column 9, line 66-column 10, line 4), comprising: a server that receives request from one or more VOD clients for one or more VOD sessions (column 10, line 5-21), causes transmission of one or more VOD sessions over a transport stream to one or more VOD clients (column 10, lines 38-51), determines whether the number of VOD sessions transmitted over the transport stream is below a minimum threshold (wherein MPEG constant-bit rate encoding *requires* dummy packets to be added to the stream if it is determined that the current output is less the required predetermined bit-rate value; column 6, lines 4-6),

and causes transmission of one or more padding sessions over the transport stream if the number of VOD sessions transmitted over the transport stream is below the minimum threshold to maintain the number of VOD sessions at or above the minimum threshold (wherein MPEG constant-bit rate encoding *requires* dummy packets to be added to the stream as needed to maintain a predetermined bit-rate value over the transport stream; column 6, lines 4-6).

As to claim 11, Nelson discloses wherein the server causes transmission of VOD sessions over a plurality of RF channels each associated with a transport stream (column 4, lines 35-43 and column 9, line 66-column 10, line 4), the server determines, for each transport stream, whether the number of VOD sessions is below the minimum threshold, and, for each transport stream, causes transmission of one or more padding sessions if the number of VOD sessions transmitted over the respective transport stream is below the minimum threshold to maintain the number of VOD sessions at or above the minimum threshold (wherein MPEG constant-bit rate encoding *requires* dummy packets to be added to the stream as needed to maintain a predetermined bit-rate value over the transport stream; column 6, lines 4-6).

As to claim 12, Nelson discloses wherein when the server receives a request for a new VOD session from a VOD client (column 9, line 66-column 10, line 16), the control server terminates one or more of the one or more padding sessions (wherein dummy packets are no longer added to stuff the transport stream once a new VOD

session is transmitted; column 10, lines 21-64), and causes transmission of the new VOD session (column 10, lines 21-64).

As to claim 20, Nelson discloses a digital video system (Fig. 1; column 9, line 66-column 10, line 4), comprising:

- a transmission channel (130);

- a plurality of receivers coupled to the transmission channel (settops, 140; Fig. 1), a client (VOD application, 1100) at each receiver capable of subscribing to one or more video sessions over a transport stream (column 10, lines 5-10);

- a headend coupled to the transmission channel (120; Fig. 1), said headend including a video server that can transmit one or more video session to one or more receivers (column 10, lines 11-37), and a control server coupled to the video server (connection manager, 345; Fig. 11), the control server to cause the video server to transmit one or more dummy sessions over the transport stream to maintain a predetermined minimum bandwidth of content over the transport stream (wherein MPEG constant-bit rate encoding *requires* dummy packets to be added to the stream as needed to maintain a predetermined bit-rate value over the transport stream; column 6, lines 4-6).

As to claim 21, Nelson discloses wherein the control server is configured to determine whether the bandwidth of content over the transport stream is below a predetermined threshold (wherein it is determined if the video stream is at the required



constant bit rate), and to cause the video server to transmit one or more dummy sessions, as necessary, to maintain the bandwidth of content at the predetermined threshold (wherein MPEG constant-bit rate encoding *requires* dummy packets to be added to the stream as needed to maintain a predetermined bit-rate value over the transport stream; column 6, lines 4-6).

As to claim 22, Nelson discloses wherein the headend transmits digital video programming in accordance to a video on demand (VOD) system (column 9, line 66-column 10, line 64).

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Brown (5,822,530).

As to claim 1, Brown discloses a video on demand system (Fig. 1; column 2, lines 46-62), comprising:

- a transmission channel (110);

- a plurality of receivers coupled to the transmission channel (105), a VOD client at each receiver capable of subscribing to one or more VOD sessions over a transport stream (column 6, lines 9-19);

- a headend coupled to the transmission channel (115), said headend including a video server that can transmit one or more VOD session to one or more receivers (column 6, lines 9-19), and a control server coupled to the video server (connection manager, 345; Fig. 11), the control server to dynamically allocate (column 6, lines 9-19)

Art Unit: 2617

and terminate VOD sessions (at the point in time when the presentation ends; column 6, lines 9-19) over the transport stream as VOD clients are added and terminated (column 6, lines 9-19), and, *if necessary, to cause the video server to transmit one or more dummy sessions over the transport stream to maintain a predetermined minimum bandwidth of content over the transport stream* (wherein the transmission of dummy sessions is not necessary or considered by Brown's system).

### **Conclusion**

4. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

### **Certificate of Mailing**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

on \_\_\_\_\_  
(Date)

Typed or printed name of person signing this certificate:

\_\_\_\_\_

Signature: \_\_\_\_\_

Art Unit: 2617

Registration Number: \_\_\_\_\_

**Certificate of Transmission**

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. ( ) \_\_\_\_\_ - \_\_\_\_\_ on \_\_\_\_\_.  
(Date)

Typed or printed name of person signing this certificate:

\_\_\_\_\_

Signature: \_\_\_\_\_

Registration Number: \_\_\_\_\_

Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sheleheda whose telephone number is (571) 272-7357. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James Sheleheda  
Patent Examiner  
Art Unit 2617

JS

A handwritten signature in black ink, appearing to read 'Vivek Srivastava', written in a cursive style.

**VIVEK SRIVASTAVA  
PRIMARY EXAMINER**